



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,748	04/02/2004	William L. Bunnelle	14369.6US01	1148
23552	7590	03/16/2006	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			BOYKIN, TERRESSA M	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/816,748

Applicant(s)

BUNNELLE, WILLIAM L.

Examiner

Terressa M. Boykin

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8-25-05</u> . | 6) <input type="checkbox"/> Other: _____  |

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

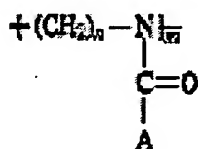
**Claims 18– 22 are rejected under 35 U.S.C. 102( b) as being anticipated by USP 5459184 as noted in applicants I.D.S. see table 1 , example 4, claims 39 and 44 .**

The hot melt adhesives of the reference comprises a water-soluble polyalkylenimine, an hydroxy substituted organic compound, and optimally a plasticizer, a tackifier, and other ingredients. The adhesives are water actuated, and can be water activated, cleaned by aqueous systems, or recycled in aqueous systems. *Note that claim 18 does not require a salt of a strong acid.* A first aspect of the reference comprises an effective amount, from 10-75 wt-% of the polyalkylenimine polymer, an effective amount, about 10-50 wt-% of the hydroxy substituted organic compound and the balance of the formulation made from such additional components such as organic extenders, non-blocking additives, anti-oxidants, inorganic fillers, dyes, colorants, etc. Note that the above, additives *are optional as in the non-blocking additives.*

The contact lens adhesive is a substitute for a hydrophobic composition currently used in the contact lens industry. The current blocking adhesives require a chlorinated hydrocarbon solvent to dissolve the adhesive and requires an ultrasonic cleaning step for complete removal. The chlorinated solvent is believed to pose some health hazard to workers and can harm polymeric lens surfaces. The contact lens adhesive of this reference is fully water soluble, is non-toxic and results in substantial time and cost savings.

Nevertheless, the reference does disclose that the composition can also comprise an effective amount of an inorganic extender or filler, such as calcium carbonate, zinc oxide, alumina, clays, titanium dioxide, talc, carbon black and the like. For example, the adhesives formulated to be moisture-sensitive and can comprise up to about 25 wt-% of a mineral extender which is preferably fatty acid estercoated to increase its organophilicity. One commercially-available filler of this type is the stearate-calcium carbonate compound. The filler material can also function to reduce (if desired) the pressure-sensitivity of the moisture-activated adhesives of the reference.

Preferred polyalkylenimines include polyethylenimines and polypropylenimines which are prepared by polymerizing heterocyclic monomers of the formula I wherein n is 2 or 3. These polyalkylenimines can be represented by the general formula II:



wherein A is as defined hereinabove, n is about 2-3 and m is about 50-10,000, preferably about 100-7500. Most preferably the heterocyclic monomer will comprise an alkyl substituted-2-oxazoline, i.e. n=2. The molecular weights of the polymers derived from such monomers can range from less than 50,000 to 500,000 or above.

Note claims 3, 4, 5, 6, and 7 and claims 28 –32 of the reference discloses the recited polyethyleneimine (although misspelled).

With regard to claims the hydroxy wax note claims 2, 15, 20, 27 and 40 of the reference.

Thus, the reference discloses prepared from the same components as claimed by applicants. Since the disclosed weight percents or amounts are expressed differently and thus may be distinct from those claimed, it is incumbent upon applicant(s) to establish that they are in fact different and whether such difference is unobvious. In view of the above, there appears to be no significant difference between the reference(s) and that which is claimed by applicant(s). Any differences not specifically mentioned appear to be conventional. Consequently, the claimed invention cannot be deemed as novel and accordingly is unpatentable.

#### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior

Art Unit: 1711

art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 5459184 see abstract, claims in view of US 5595764 .**

As noted previously, the reference discloses a hot melt adhesives which can comprise a water-soluble polyalkylenimine, an hydroxy substituted organic compound, and optimally a plasticizer, a tackifier, and other ingredients. The adhesives are water actuated, and can be water activated, cleaned by aqueous systems, or recycled in aqueous systems.

Note that although the claims require a salt of a strong acid and a particle size as disclosed, the reference does disclose the use of calcium carbonate filler which may also be known to be used as a water soluble composition. Note for example, **US 5595764** provides a minimally water-soluble, calcium-based composition that is delivered directly or indirectly to the ocular surface. Calcium in this composition is present as a more or less water insoluble salt, such as calcium carbonate. The calcium salt is finely divided into particles having mean diameters of between 15 to 60 microns which fall within the size of less than about 150 microns as claimed. Although the reference does not disclose the use of sodium or potassium salt, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the salt composition as discussed since such water solubleness affects the ocular surface and would be advantageous with regard to rinsing, cleaning etc.

With regard to the depended claims 2-17 note the disclosure of the reference **USP 5459184** as discussed above.

Consequently, the claimed invention cannot be deemed as unobvious and accordingly is unpatentable.

### **Correspondence**

Please note that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)), from the Office of Public Records and from commercial sources. Applicants may be referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Terressa Boykin whose telephone number is 571 272-1069. The examiner can normally be reached on Monday through Friday from 6:30am to 3:00pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. The general information number for listings of personnel is ( 571-272-1700).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 1711

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tmb

  
Examiner Terressa Boykin

TERRESSA M. BOYKIN  
PRIMARY EXAMINER